

CLASSIFICATION **CONFIDENTIAL**  
 CENTRAL INTELLIGENCE AGENCY  
 INFORMATION FROM  
 FOREIGN DOCUMENTS OR RADIO BROADCASTS

REPORT

50X1-HUM

CD NO.

COUNTRY USSR

DATE OF INFORMATION 1949

SUBJECT Economic; Technological - Road-building machinery

DATE DIST. 5 Mar 1951

HOW PUBLISHED Book

WHERE PUBLISHED Moscow

NO. OF PAGES 2

DATE PUBLISHED 1949

SUPPLEMENT TO REPORT NO.

LANGUAGE Russian

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF ESPIONAGE ACT 50 U. S. C. 31 AND 32, AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

SOURCE Motorist Bul'dozera, Dorizdat, 1949.SPECIFICATIONS OF USSR BULLDOZERS AND THEIR CONTROL SYSTEMS

The following are technical characteristics of certain Soviet bulldozers:

	<u>D-157</u>	<u>D-149</u>	<u>D-159</u>
Dimensions of bowl (mm)			
Length	3,030	3,600	2,250
Height	1,100	900	800
Recommended maximum depth to which bowl can be lowered below level of bearing surface of crawlers (mm)	200	200	150
Greatest possible depression of bowl (mm)	over 1,000	--	--
Maximum lift of blade above bearing surface of crawlers (mm)	900	875	600
Cutting angle of blade (deg)	60	60	60
Maximum dimensions of bulldozer with tractor (mm)			
Length	5,150	5,320	4,500
Width	3,030	3,560	2,300
Height	2,915	2,180	2,250
Weight of bulldozer without tractor (kg)	2,135	3,200	900
Weight of bulldozer with tractor and winch (kg)	14,235	14,400	6,000
Control system	D-148 cable winch	Hydraulic	Hydraulic
Tractor	<u>S-80</u>	<u>S-80</u>	<u>STZ-3</u>
Forward speeds (km/h)			
First speed	2.25	2.25	3.28
Second "	3.60	3.60	4.53

- 1 -

**CONFIDENTIAL**

CLASSIFICATION		CONFIDENTIAL		DISTRIBUTION							
STATE	<input checked="" type="checkbox"/> NAVY	<input checked="" type="checkbox"/> NSRB									
ARMY	<input checked="" type="checkbox"/> AIR	<input checked="" type="checkbox"/> FBI									

**CONFIDENTIAL**

CONFIDENTIAL

50X1-HUM

	<u>S-80</u>	<u>S-80</u>	<u>STZ-3</u>
Third speed	5.14	5.14	5.28
Fourth "	7.40	7.40	8.04
Fifth "	9.65	9.65	--
Backward speeds (km/h)			
First speed	2.66	2.66	3.12
Second "	4.25	4.25	--
Third "	6.10	6.10	--
Fourth "	8.75	8.75	--
Pushing-pulling force exerted at various speeds (kg)			
First speed	8,800	8,800	2,600
Second "	5,200	5,200	2,000
Third "	3,300	3,300	1,600
Fourth "	2,000	2,000	1,000
Fifth "	1,500	1,500	--

The following are technical characteristics of the control winch:

Model	D-148
Type tractor	S-80
Type winch	Friction
Location on tractor	Rear
Weight, minus cable (kg)	725
Number of drums	2
Drive	From power take-off
Gear ratio of reduction mechanism	7.25
Speed of revolution of drum, with power take-off making 1,000 (rpm)	138
Diameter of drums (mm)	216
Length " " "	194
Pull exerted on cable (kg)	
On first band	2,300
On last "	1,400
Speed of cable (m/sec)	
First band	1.66
Second band	2.70
Diameter of cable (mm)	13
Length " " (m)	21
Length of cable that can be held on one drum (m)	70
Type clutch	Friction, conical
Type brake	Band, with tension spring

Given below are technical characteristics of the UG-1 hydraulic control system for bulldozers and scrapers working with the STZ-3 tractor:

Medium used	Spindle oil, No 2 and 3
Type of pump	Geared
Drive for pump	From power take-off
Productivity (l/min)	205
Speed of pump rotor (rpm)	925
Speed of rotor of power take-off (rpm)	525
Pressure exerted by pump on system (atm)	30
Distributor device	Slide valve
Diameter of tubing (mm)	26/36
Volume of oil reservoir (l)	23
Weight of hydraulic drive (kg)	150

- E N D -

- 2 -

CONFIDENTIAL

**CONFIDENTIAL**